(19) Canadian Intellectual Property Office
An Agency of Industry Canada

Office de la Propriété Intellectuelle du Canada
Un organisme d'Industrie Canada

(11) CA 2 246 031 (13) A1
(43) 28.02.2000

(12)

(21) 2 246 031

(51) Int. Cl.[6]: B63B 001/10, B63H 016/00

(22) 28.08.1998

(71) DUST, Norman,
2A Larkspur Crescent, ST. ALBERT, A1 (CA).

(72) DUST, Norman (CA).

(74) THOMPSON LAMBERT

(54) EMBARCATION
(54) BOAT

(57)

A boat includes a bow essentially similar in design to that of either a canoe or a kayak and a multihull stern. The boat has substantially increased stability by virtue of the stance of the multihull stern. This stability is obtained without making modifications to the boat which would widen it at the paddling position.

OPIC
OFFICE DE LA PROPRIÉTÉ INTELLECTUELLE DU CANADA

CIPO
CANADIAN INTELLECTUAL PROPERTY OFFICE

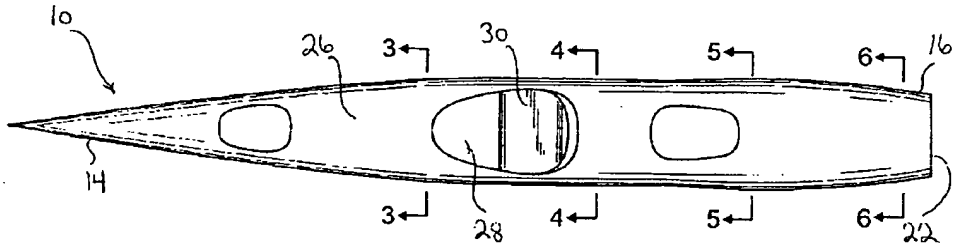
(12) (19) (CA) **Demande-Application**

(21) (A1) **2,246,031**
(22) 1998/08/28
(43) 2000/02/28

(72) DUST, Norman, CA
(71) NORCRAFT CONSULTING SERVICES INC., CA

(51) Int.Cl.[6] B63B 1/10, B63H 16/00

(54) **EMBARCATION**
(54) **BOAT**




(57) A boat includes a bow essentially similar in design to that of either a canoe or a kayak and a multihull stern. The boat has substantially increased stability by virtue of the stance of the multihull stern. This stability is obtained without making modifications to the boat which would widen it at the paddling position.

UNITED STATES/CANADA

## ABSTRACT OF THE DISCLOSURE

A boat includes a bow essentially similar in design to that of either a canoe or a kayak and a multihull stern. The boat has substantially increased stability by virtue of the stance of the multihull stern. This stability is obtained without making modifications to the boat which would widen it at the paddling position.

**TITLE OF THE INVENTION:**

boat

**NAME(S) OF INVENTOR(S):**

Norman Dust

**FIELD OF THE INVENTION**

The present invention relates to a new design for a boat and, in particular, a boat that is intended to be manually paddled.

**BACKGROUND OF THE INVENTION**

Canoes and kayaks are light weight, easily manoeverable craft that are powered by paddling. They are well suited for recreational use. However, canoes and kayaks are known to have limited lateral stability.

**SUMMARY OF THE INVENTION**

What is required is a boat with enhanced stability that maintains the light weight, easy manoevering of canoes and kayaks, without adversely affecting paddling.

According to the present invention there is provided a boat which includes a bow essentially similar in design to that of either a canoe or a kayak and a multihull stern.

The boat, as described above, can be made to resemble either a canoe or a kayak. However, it has substantially increased stability by virtue of the stance of the multihull stern. This stability is obtained without making modifications to the boat which would widen it at the paddling position so as to make it difficult to paddle. It is preferred that there be two or three hulls.

Although beneficial results may be obtained through the use of the boat, as described above, it is preferred that the multihull stern have at least two hulls separated by a

connecting surface that extends from an upper remote end of the multihull stern inwardly and downwardly, merging with the bow to form a watertight intermediate hull.

## BRIEF DESCRIPTION OF THE DRAWINGS

These and other features of the invention will become more apparent from the following description in which reference is made to the appended drawings, wherein:

**FIGURE 1** is a top plan view of a first embodiment of boat constructed in accordance with the teachings of the present invention.

**FIGURE 2** is a bottom plan view of the boat illustrated in **FIGURE 1.**

**FIGURE 3** is an end elevation view, in section, of the boat, taken along section lines **3-3** of **FIGURE 1.**

**FIGURE 4** is an end elevation view, in section, of the boat, taken along section lines **4-4** of **FIGURE 1.**

**FIGURE 5** is an end elevation view, in section, of the boat, taken along section lines **5-5** of **FIGURE 1.**

**FIGURE 6** is an end elevation view, in section, of the boat, taken along section lines **6-6** of **FIGURE 1.**

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

A preferred embodiment of boat, generally identified by reference numeral 10, will hereinafter be described with reference to **FIGURES 1** through **6**.

With reference to **FIGURE 1**, boat 10 has a bow 14 which is essentially similar in design to that of a kayak and a multihull stern 16 that forms a fantail as opposed to coming converging to form a point. Referring to **FIGURE 2**, multihull stern 16 is illustrated as having two hulls 18 in spaced apart relation. Hulls 18 are separated by an inclined connecting surface 20 which commences at an upper remote end 22 of stern 16 and extends downwardly at an angle until it merges with bow 14 to form a watertight intermediate hull 24. Referring to **FIGURE 1**, as with a kayak, boat 10 has a top surface covering

26 through which is provided an access entry 28. The relative positioning of a seat 30 is also illustrated. With reference to **FIGURES** 3, 4, 5, and 6 end elevation views are shown at intervals along hull 24, as along section lines **3-3**, **4-4**, **5-5** and **6-6**, respectively, of **FIGURE 1**.

Although a one person craft is illustrated with a single access entry 28, it will be obvious to one skilled in the art that the design can be modified by the addition of a second or third means of entry to accommodate more people. It will also be obvious to one skilled in the art that the dimensions of the boat 10, the relative proportions of dimensions of the boat 10, the curvature of each surface of the hull of the boat, and the angle and curvature of the bow, stern, and the edges at which the different surfaces of the hull are connected to each other can each be varied over a wide range of values without affecting the concept and principals of the design. It will also be obvious to one skilled in the art that the hull may be constructed so as to be hollow, or that the hull may be constructed of a rigid foam material or lightweight material, so as to render the boat 10 unsinkable. Although two hulls 18 are shown in the illustration, it will be apparent to one skilled in the art that the design can be amended to include three or more hulls without affecting the concept or principals of the design. The angle of the hulls relatively to the vertical axis can, similarly, be varied over a range of values without affecting the concept and principals of the design. It will further be apparent to one skilled in the art that a body of a canoe can similarly be modified to that of boat 10.

The use and operation of boat 10 will now be described with reference to **FIGURES 1** through 6. The construction of a canoe or a kayak always requires a compromise between maximum width for lateral stability and minimum width for paddling ease. Stability comes from width. However, as width increases the boat becomes harder to paddle and moves slower through the water. Boat 10 is designed to separate the lateral stability

factors relating to width from the paddling comfort factors of width. It does this by moving the greatest width portion of the boat to fantail stern 16 and away from the paddling position of seat 30. The width of boat 10 at the paddling position need only be determined by considerations related to paddling comfort and ease. Normally increasing the width of boat 10 at stern 16 would slow the boat down. With boat 10, hulls 18 that engage the water provide substantially increased lateral stability without reducing the ease with which boat 10 can be propelled forward. Inclined connecting surface 20, which commences at remote end 22 of stern 16 and extends downwardly at an angle until it merges with bow 14, provides little if any drag.

It will be apparent to one skilled in the art that other modifications may also be made to the illustrated embodiment without departing from the spirit and scope of the invention as hereinafter defined in the Claims.

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. A boat, comprising:
   a bow of one of a canoe and a kayak; and
   a multihull stern.

2. The boat as defined in Claim 1, wherein the multihull stern has at least two hulls separated by a connecting surface that extends from an upper remote end of the multihull stern merging with the bow to form a watertight intermediate hull.

3. A boat, comprising:

a bow of one of a canoe and a kayak; and

a multihull stern having at least two hulls separated by a connecting surface that extends from an upper remote end of the multihull stern inwardly and downwardly, merging with the bow to form a watertight intermediate hull.

4. The boat as defined in Claim 3, wherein the multihull stern has a fantail shape.

5. The boat as defined in Claim 3, wherein the bow is one of a kayak.

6. The boat as defined in Claim 3, wherein the bow is one of a canoe.

7. The boat as defined in Claim 3, wherein the multihull stern has two hulls.

8. The boat as defined in Claim 3, wherein the multihull stern has three hulls.

9. A boat, comprising:

a bow of one of a canoe and a kayak; and

a multihull stern having at least two hulls separated by a connecting surface that extends from a seating position upwardly to a upper remote end of the multihull stern to form a watertight intermediate hull.

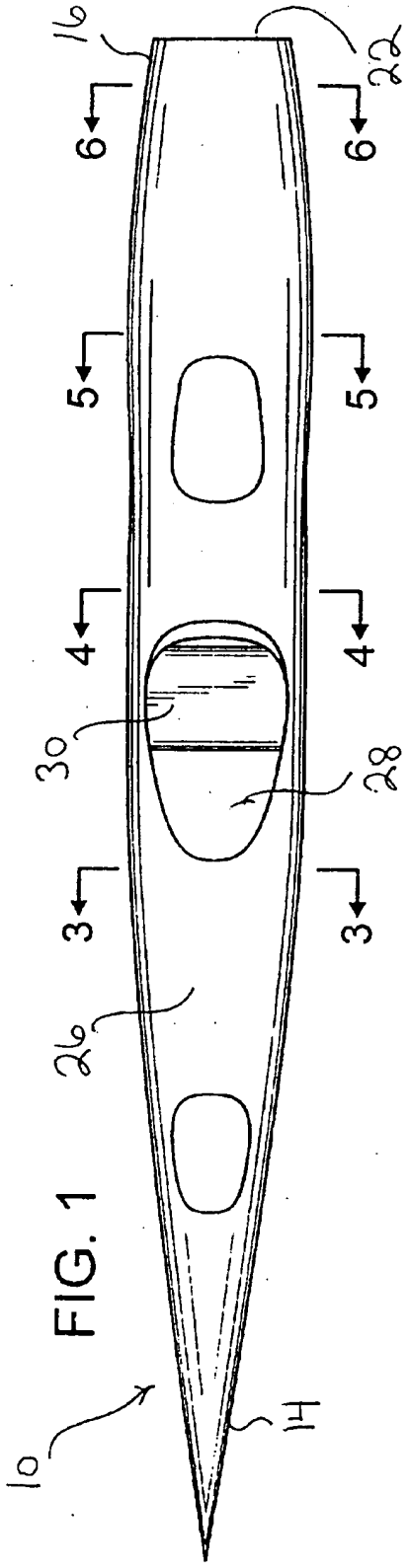



FIG. 1

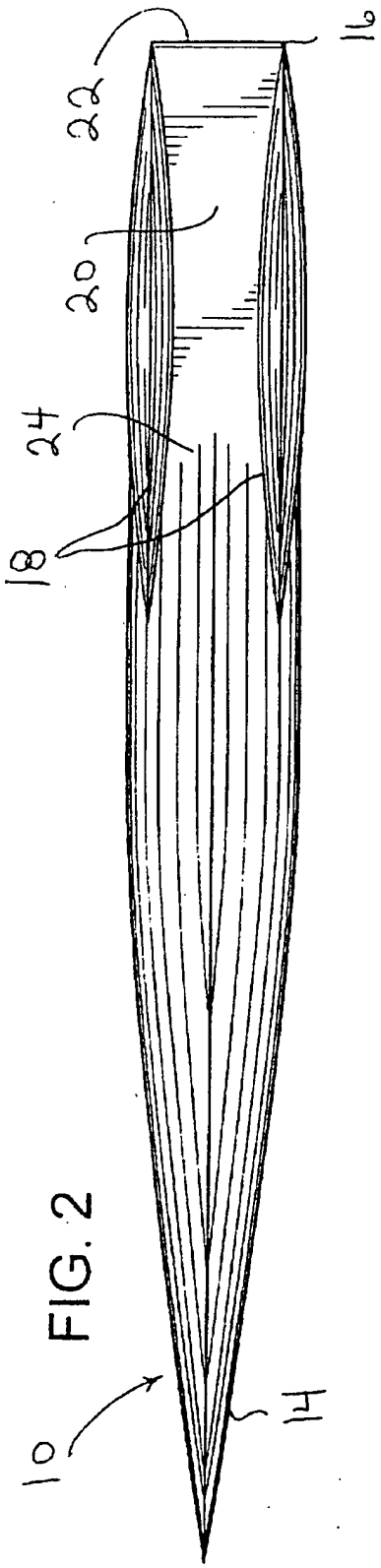



FIG. 2

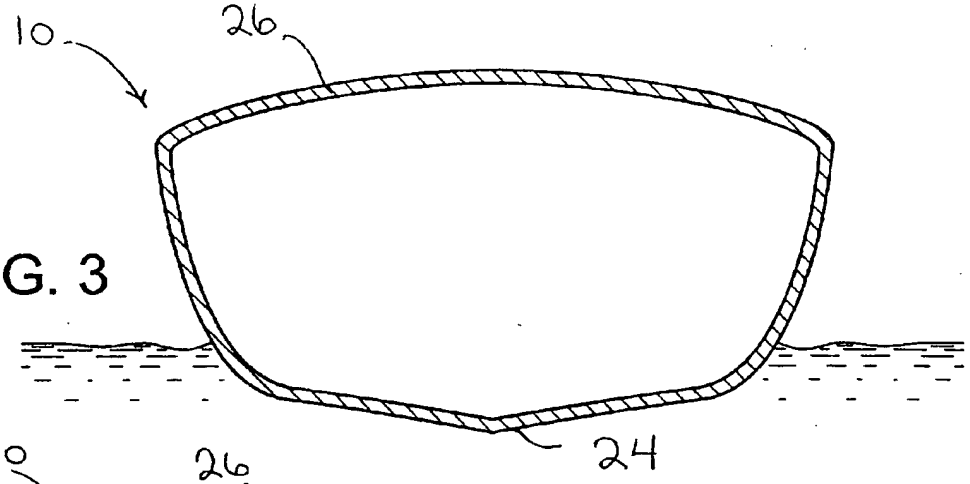



FIG. 3

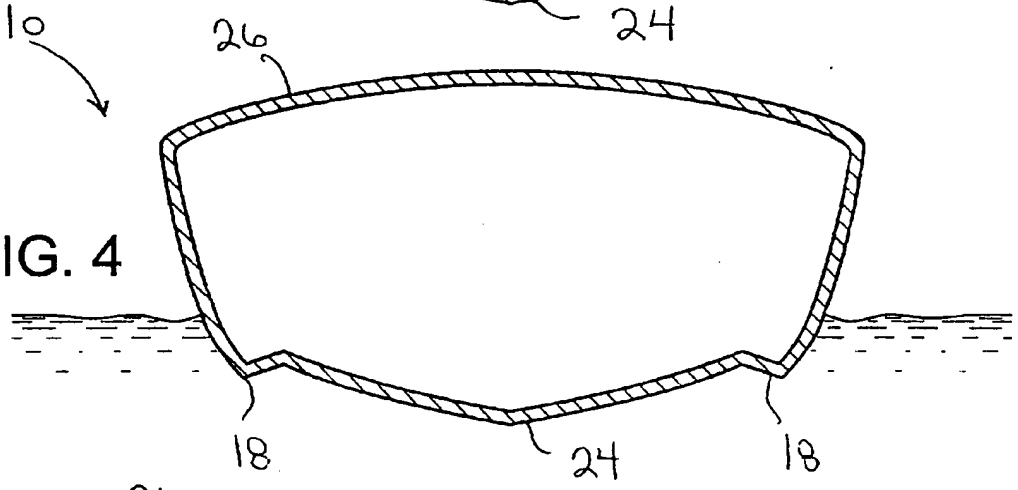



FIG. 4

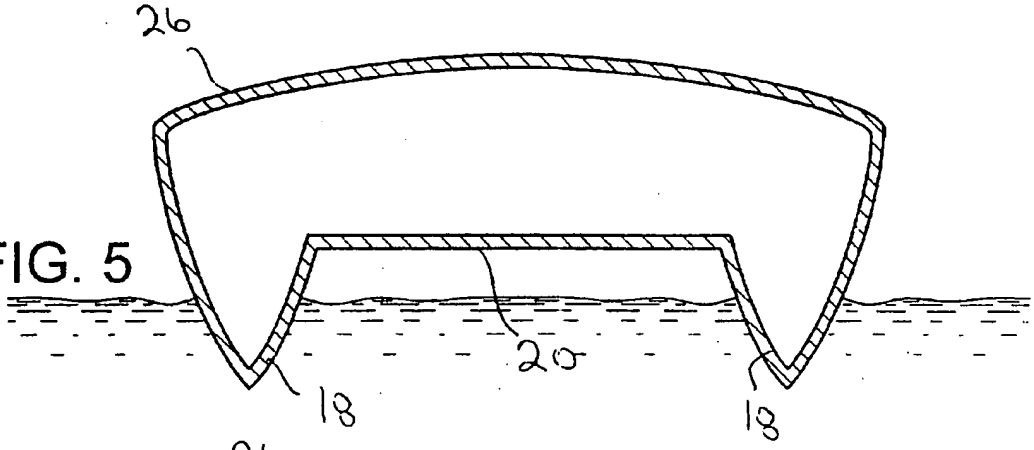



FIG. 5

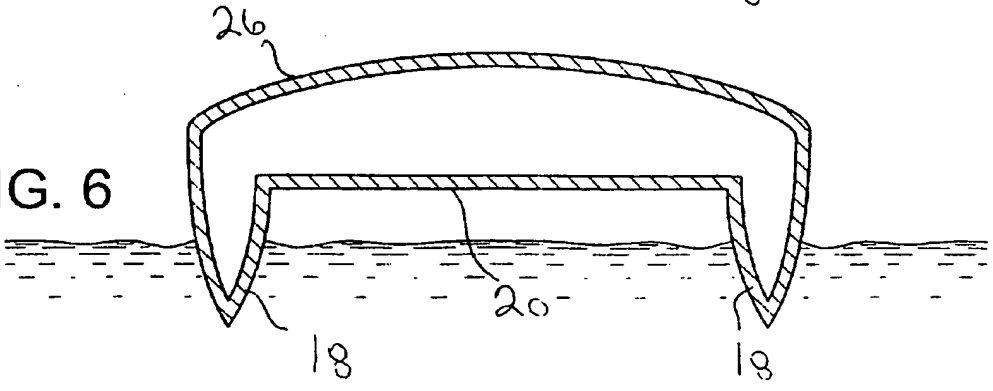



FIG. 6